SEQUENCE LISTING

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BATHE, BRIGITTE

HANS, STEFAN

KREUTZER, CAROLINE

HERMANN, THOMAS

PFEFFERLE, WALTER

BINDER, MICHAEL

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cgt Arg	⊒att ⊑1le □215	Asp	cgc Arg	aag Lys	cgt Arg	cgc Arg 220	cag Gln	cca Pro	gtc Val	acc Thr	gta Val 225	ctg Leu	ctg Leu	aag Lys	gct Ala	1388
ctt Leu 230	⊈Gly	tgg Trp	acc Thr	act Thr	gag Glu 235	Gln	atc Ile	acc Thr	gag Glu	cgt Arg 240	Pne	ggt Gly	ttc Phe	tct Ser	gaa Glu 245	1436
ato Ile	atç e Met	atg : Met	tcc Ser	acc Thr 250	Leu	gag Glu	tcc Ser	gat Asp	ggt Gly 255	vaı	gca Ala	a aac a Asn	acc Thr	gat Asp 260	gag Glu	1484
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cg Ar	c gad g Asp	c ctt Lei 280	ı Ala	g caq a Glr	g tco n Ser	cto Lev	cto Lev 285	ı Asp	aac Asr	c ago n Sei	c tto c Phe	c tto e Phe 290	HIG	gca Ala	a aag a Lys	1580
cg Ar	c tac g Ty: 29	r Ası	c cto D Lev	g gct ı Ala	t cgo a Aro	gtt g Val 300	- GT	t cgt y Ard	taq g Ty:	c aaq r Ly:	g ato s Ilo 30	6 1121	c cgo n Aro	aaq J Lys	g ctc s Leu	1628
gg Gl 31	y Le	t ggʻ u Glʻ	t ggo y Gl <u>y</u>	c gad y Asj	c cac p His 31	s Asp	gg Gl	t tte	g ato u Me	g act t Thi 32	r ne	t act u Thi	t gaa r Glu	a gaq ı Gli	g gac u Asp 325	1676

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~++	att Jile	200	cca Pro	gtc Val	gca Ala 635	ggt Gly	gtg Val	gtg Val	gaa Glu	aac Asn 640	vaı	tca Ser	gct Ala	gac Asp	ttc Phe 645	2636
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gt! Va:	aac L Asr	tto Lev 680	ı Gly	gag Glu	cgc Arg	gtt Val	gaa Glu 685	Ата	ggc	cag Gln	ı gtt ı Val	att Ile 690		gat Asp	ggt Gly	2780
cca Pro	a ggt o Gly 695	y Thi	ttc Phe	aat Asn	ggt Gly	gaa Glu 700	ı Met	tco Ser	ctt Lev	ggc Gly	cgt Arg 705	, ASI	ctt Leu	cto Lev	ggtt Val	2828
gco Al	a Phe	c ato	g cct : Pro	tgo Trp	g gaa Glu 715	ı GIŞ	cac His	c aac s Asr	tac Tyi	gaq Glu 720	Y WPF	gcg Ala	g ato a Ile	ato E Ile	c ctc Leu 725	2876
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Val A	gat cc Asp Pr 935	t gaa o Gli	a gat ı Asp	cct Pro	gaç Glu 940	ı Asr	c gct n Ala	gaç Glu	g cto ı Lev	gto Val 94!	г гр	g act s Thr	cto Lei	g cct 1 Pro	3548

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	ca a ro M	-	-	Let	c gcq ı Ala	g ggt a Gly	gac Asp	gac Asp 1140	Asp	gac Asp	ttc Phe	gat Asp	cag Gln 1145	Ala	ggc Gly		4142

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Ala Pro Ile Glu Val Pro Gly Leu Leu Asp Leu Gln Leu Asp Ser Tyr 35 40 45

Ser Trp Leu Ile Gly Thr Pro Glu Trp Arg Ala Arg Gln Lys Glu Glu 50 55 60

Phe Gly Glu Gly Ala Arg Val Thr Ser Gly Leu Glu Asn Ile Leu Glu 65 <u>L.</u> 70 75

Glu Leu Ser Pro Ile Gln Asp Tyr Ser Gly Asn Met Ser Leu Ser Leu 95

Ser Glu Pro Arg Phe Glu Asp Val Lys Asn Thr Ile Asp Glu Ala Lys

Glu-Lys Asp Ile Asn Tyr Ala Ala Pro Leu Tyr Val Thr Ala Glu Phe
In 115 120 125

Val Asn Asn Thr Thr Gly Glu Ile Lys Ser Gln Thr Val Phe Ile Gly
130 135 140

Asp Phe Pro Met Met Thr Asp Lys Gly Thr Phe Ile Ile Asn Gly Thr 145 150 150

Glu Arg Val Val Ser Gln Leu Val Arg Ser Pro Gly Val Tyr Phe 165 170 175

Asp Gln Thr Ile Asp Lys Ser Thr Glu Arg Pro Leu His Ala Val Lys 180 185 190

Val Ile Pro Ser Arg Gly Ala Trp Leu Glu Phe Asp Val Asp Lys Arg 195 200 205

Asp Ser Val Gly Val Arg Ile Asp Arg Lys Arg Arg Gln Pro Val Thr

Val Leu Leu Lys Ala Leu Gly Trp Thr Thr Glu Gln Ile Thr Glu Arg Phe Gly Phe Ser Glu Ile Met Met Ser Thr Leu Glu Ser Asp Gly Val Ala Asn Thr Asp Glu Ala Leu Leu Glu Ile Tyr Arg Lys Gln Arg Pro Gly Glu Gln Pro Thr Arg Asp Leu Ala Gln Ser Leu Leu Asp Asn Ser H Phe Phe Arg Ala Lys Arg Tyr Asp Leu Ala Arg Val Gly Arg Tyr Lys ௶290 Ile Asn Arg Lys Leu Gly Leu Gly Gly Asp His Asp Gly Leu Met Thr 305₌ N Led Thr Glu Glu Asp Ile Ala Thr Thr Ile Glu Tyr Leu Val Arg Leu ΠIJ His Ala Gly Glu Arg Val Met Thr Ser Pro Asn Gly Glu Glu Ile Pro Val Glu Thr Asp Asp Ile Asp His Phe Gly Asn Arg Arg Leu Arg Thr Val Gly Glu Leu Ile Gln Asn Gln Val Arg Val Gly Leu Ser Arg Met Glu Arg Val Val Arg Glu Arg Met Thr Thr Gln Asp Ala Glu Ser Ile

Glu Phe Phe Gly Thr Ser Gln Leu Ser Gln Phe Met Val Gln Asn Asn

Thr Pro Thr Ser Leu Ile Asn Val Arg Pro Val Ser Ala Ala Ile Arg

420 425 430

Ser Leu Ser Gly Leu Thr His Lys Arg Arg Leu Ser Ala Leu Gly Pro 435

Gly Gly Leu Ser Arg Glu Arg Ala Gly Ile Glu Val Arg Asp Val His 450

Pro Ser His Tyr Gly Arg Met Cys Pro Ile Glu Thr Pro Glu Gly Pro 465 470 475 480

Asn Ile Gly Leu Ile Gly Ser Leu Ala Ser Tyr Ala Arg Val Asn Pro
485 490 495

Phe Gly Phe Ile Glu Thr Pro Tyr Arg Arg Ile Ile Asp Gly Lys Leu 500 500 510

Thr Asp Gln Ile Asp Tyr Leu Thr Ala Asp Glu Glu Asp Arg Phe Val 525

Val—Ala Gln Ala Asn Thr His Tyr Asp Glu Glu Gly Asn Ile Thr Asp UT530 535 540

Glu Thr Val Thr Val Arg Leu Lys Asp Gly Asp Ile Ala Met Val Gly 545 550 560

Arg Asn Ala Val Asp Tyr Met Asp Val Ser Pro Arg Gln Met Val Ser 575

Val Gly Thr Ala Met Ile Pro Phe Leu Glu His Asp Asp Ala Asn Arg 580 585 590

Ala Leu Met Gly Ala Asn Met Gln Lys Gln Ala Val Pro Leu Ile Arg 595 600 605

Ala Glu Ala Pro Phe Val Gly Thr Gly Met Glu Gln Arg Ala Ala Tyr 610 615 620

Asp Ala Gly Asp Leu Val Ile Thr Pro Val Ala Gly Val Val Glu Asn

625 630 635 640

Val Ser Ala Asp Phe Ile Thr Ile Met Ala Asp Asp Gly Lys Arg Glu 655

Thr Tyr Leu Leu Arg Lys Phe Gln Arg Thr Asn Gln Gly Thr Ser Tyr 660 665 670

Asn Gln Lys Pro Leu Val Asn Leu Gly Glu Arg Val Glu Ala Gly Gln 675 680 685

Val Ile Ala Asp Gly Pro Gly Thr Phe Asn Gly Glu Met Ser Leu Gly
690 695 700

Arg Asn Leu Val Ala Phe Met Pro Trp Glu Gly His Asn Tyr Glu 705

Asp Ala Ile Ile Leu Asn Gln Asn Ile Val Glu Gln Asp Ile Leu Thr 735

Sel-Ile His Ile Glu Glu His Glu Ile Asp Ala Arg Asp Thr Lys Leu 740 745 750

和 Glu Glu Ile Thr Arg Asp Ile Pro Asn Val Ser Glu Glu Val 755 760 765

Leu Lys Asp Leu Asp Asp Arg Gly Ile Val Arg Ile Gly Ala Asp Val 770 775 780

Arg Asp Gly Asp Ile Leu Val Gly Lys Val Thr Pro Lys Gly Glu Thr 785 790 795 800

Glu Leu Thr Pro Glu Glu Arg Leu Leu Arg Ala Ile Phe Gly Glu Lys 805 810 815

Ala Arg Glu Val Arg Asp Thr Ser Met Lys Val Pro His Gly Glu Thr 820 825 830

Gly Lys Val Ile Gly Val Arg His Phe Ser Arg Glu Asp Asp Asp Asp

835 840 845

Leu Ala Pro Gly Val Asn Glu Met Ile Arg Ile Tyr Val Ala Gln Lys 850 855 860

Arg Lys Ile Gln Asp Gly Asp Lys Leu Ala Gly Arg His Gly Asn Lys 865 870 880

Gly Val Val Gly Lys Ile Leu Pro Gln Glu Asp Met Pro Phe Leu Pro 885 890 895

Asp Gly Thr Pro Val Asp Ile Ile Leu Asn Thr His Gly Val Pro Arg 900 905 910

Arg Met Asn Ile Gly Gln Val Leu Glu Thr His Leu Gly Trp Leu Ala
915
925

Ser Ala Gly Trp Ser Val Asp Pro Glu Asp Pro Glu Asn Ala Glu Leu # 930 935 940

VallLys Thr Leu Pro Ala Asp Leu Leu Glu Val Pro Ala Gly Ser Leu 945 955 950

Thr Ala Thr Pro Val Phe Asp Gly Ala Ser Asn Glu Glu Leu Ala Gly 965 970 975

Leu Leu Ala Asn Ser Arg Pro Asn Arg Asp Gly Asp Val Met Val Asn 980 985 990

Ala Asp Gly Lys Ala Thr Leu Ile Asp Gly Arg Ser Gly Glu Pro Tyr 995 1000 1005

Pro Tyr Pro Val Ser Ile Gly Tyr Met Tyr Met Leu Lys Leu His 1010 1015 1020

His Leu Val Asp Glu Lys Ile His Ala Arg Ser Thr Gly Pro Tyr 1025 1030 1035

Ser Met Ile Thr Gln Gln Pro Leu Gly Gly Lys Ala Gln Phe Gly

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<213> Corynebacterium glutamicum

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			ttcggttaag			300
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